

PRODUCTION TEST SPECIFICATION	G20034A1 15/01/01 ISSUE 1
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G20034A1

G3 E-PUMA 850MHz SINGLE FEED MHA FILTER ASSEMBLY TUNE AND TEST

This document should be used to tune and check the G3 filter assembly in accordance to Works Instruction WI-07-004. The attached sheet gives tuning instructions and specification limits for the separate filters.

This Document	Identity Issue Date	PTS_G20034A1_Filter 1 15/01/01
Product Code	G20034A1	G3 E-Puma Single Feed 850 MHz MHA
Tested Against Product Specification	Identity Issue Date	01DS0004 1 19/01/01

HISTORY

DATE	ISSUE	AUTHOR	ISSUE NOTE	CHANGE
15/01/01	01	S. Cox	ECO 1807	Original

Approved By – Engineering	Approved By –Quality	Approved By – Production
S. Cox	A. Simmonds	J. Tomlinson

G3 E-PUMA 850MHz MHA Filter Assembly

FILTER TUNING GUIDE (Set markers to Filter Bandwidth)

	Filter Rx1	Filter Rx2	Filter Tx
Information band	824.0 – 849.0 MHz	824.0 – 849.0 MHz	869.0 – 894.0 MHz
Filter Centre Frequency	836.5 MHz	836.5 MHz	881.5 MHz
Filter bandwidth	822.5 – 850.5 MHz (28 MHz)	822.5 – 850.5 MHz (28 MHz)	867.5 – 895.5 MHz (28 MHz)
Return Loss	>23 dB	>23 dB	>23 dB
Filter rejection	>21 dBc at 815.0 >80 dBc at 868.0	>21 dBc at 815.0 >75 dBc at 868.0	>60 dBc at 850.0
Cross coupling pole	868.5 MHz	868.5 MHz	848.5 MHz

FILTER CHARACTERISTICS (checked over Information Band)

All parameters must pass specification limits before unit can be stamped as OK and passed to next stage in production. Check all limits after screws have been locked.

Para	Electrical Parameter	Specification Limit	Record
5.8	Worst case Tx insertion loss	<0.85 dB	Write on unit Traveller
5.9	Worst case Tx return loss at BTS port	>23 dB	
5.10	Worst case Tx return loss at ANT port	>23 dB	
5.13	Tx to Rx rejection 824-850 MHz	>60 dB	Write on unit Traveller
5.11	Worst case Rx 1 insertion loss	<0.9 dB	Write on unit Traveller
5.12	Rx 1 insertion loss variation	<0.45 dB	
	Rx1 insertion loss at 815.0 MHz	>21.0 dB	
5.13	Rx 1 to Tx rejection 868-894 MHz	>80 dB	Write on unit Traveller
5.14	Worst case Rx1 return loss at ANT port	>23 dB	
5.15	Worst case Rx1 return loss at Rx1 port	>23 dB	
5.11	Worst case Rx 2 insertion loss	<0.9 dB	Write on unit Traveller
5.12	Rx 2 insertion loss variation	<0.45 dB	
	Rx2 insertion loss at 815.0 MHz	>21.0 dB	
5.13	Rx 2 to Tx rejection 868-894 MHz	>75 dB	Write on unit Traveller
5.14	Worst case Rx2 return loss at BTS port	>23 dB	
5.15	Worst case Rx2 return loss at Rx2 port	>23 dB	